

II. REMARKS

A. Status

Claims 1-9 are pending of which claims 1, 4, and 5 are independent.

In the Office Action, claims 1 and 4 were rejected under 35 U.S.C. § 102(b) as being anticipated by Authentic Third-Party Data Publication, hereinafter “ATDP”. Office Action at 2-4. Claims 2 and 3 were rejected under 35 U.S.C. § 103(a) as being obvious over ATDP. *Id.* at 5-6. Claims 5-9 were rejected under 35 U.S.C. § 103(a) as being obvious over ATDP in view of Herald: Achieving a Global Event Notification service, hereinafter “Herald.” *Id.* at 6-11.

In this amendment, claims 1 and 4-9 have been amended to improve grammar. Care has been exercised to not introduce new matter.

B. Claims Are Not Anticipated

Claims 1 and 4 were rejected under 35 U.S.C. § 102(b) as being anticipated by ATDP. Office Action at 2-4. The rejection is respectfully traversed for the following reasons.

1. Independent Claims 1 and 4 Are Not Anticipated by ATDP

ATDP teaches that a client sends a query to a publisher that computes the answer q, and a verification object VO and sends both back to the client. ATDP at 3. In other words, the publisher of ATDP provides clients with information accuracy for verification, but does not publish the signature log information itself. ATDP at 2.

The present invention recited in claim 1 is directed to a verification result recording method and a verifier side apparatus. In contrast to ATDP, the publishing organization side apparatus of the signer side system of independent claim 1 records the information publicized in the signature log which includes a chain relation among the log entries. Amendment at 2. Then, the verifier side apparatus acquires the deposited publication signature log entry of the signer

side apparatus, the signature log of the publishing organization and the newspaper publication signature log entry necessary for verification from the publishing organization side apparatus and the newspaper before verification. *Id.* In addition, ATDP does not teach that it is possible to increase the evidentiary property which could include data used for verification in the verification log, thus increasing the reliability with the newspaper publication with the chain relation included in the verification log.

A similar argument can be made for independent claim 4, which includes: "...a verification process...using a signer side signature log and a publishing organization side signature log...." *Id.* at 3. This is not taught by ATDP.

Hence, ATDP does not teach each and every limitation of independent claims 1 and 4 and therefore does not anticipate them.

2. Dependent Claims 2-3 and 6-9 Are Not Anticipated by ATDP

Of course, a dependent claim cannot be anticipated if the independent claim from which it depends is not anticipated. As discussed above, Applicants respectfully submit that independent claims 1 and 5 are not anticipated. Claims 2-3 depend from claim 1 and claims 6-9 depend from claim 5. Therefore, dependent claims 2-3 and 6-9 are also not anticipated.

C. Claims Are Not Obvious

1. Claims 2 and 3 Are Not Obvious Over ATDP

Claims 2 and 3 were rejected under 35 U.S.C. § 103(a) as being obvious over ATDP. Office Action at 5-6. The rejection is respectfully traversed for the following reasons.

Independent claim 1 distinguishes over ATDP as discussed above. It has not been shown that it would have been obvious to modify the method of ATDP to meet claim 1, therefore, it is

believed that claim 1 is patentable over ATDP. A dependent claim cannot be obvious if the independent claim from which it depends is not obvious. Claims 2-3 depend from independent claim 1. Thus, dependent claims 2-3 are also not obvious over ATDP.

However, even if independent claim 1 was deemed obvious, dependent claims 2-3 are not. The present invention recited in claims 2 and 3 is directed to the verification log and the verifying method including the steps of extracting the verification object or signer signature log, the publishing organization side signature log and the newspaper publication signature log entry and verifying matching of the chain relation to verify the verification log. Amendment at 3. It is then possible to ensure the reliability of the signature verification using the verification log (Appl. at 18:9-2:19).

On the other hand, ATDP is silent with regard to the verification log. Moreover, the data needing verification in the ATDP system is only the information of the summary signature and the publisher's information, but it lacks verification of the information of the newspaper publication that provides long-term reliability for the log. ATDP at 1-3. Thus because of its lack of sufficient information, the ATDP system does not teach enhanced reliability. A person with ordinary skill in the art would not find that any of claims 1-3 was obvious over the one reference, ATDP.

2. Claims 5-9 Are Not Obvious

Claims 5-9 were rejected under 35 U.S.C. § 103(a) as being obvious over ATDP in view of Herald: Achieving a Global Event Notification Service, hereinafter "Herald." *Id.* at 6-11. The rejection is respectfully traversed for the following reasons.

a. Independent Claim 5 Is Not Obvious Over ATDP In View Of Herald

Independent claim 5 is directed to the process of a publishing organization side apparatus. Referring to Applicants Fig. 3, for example, since the previous signature information is utilized for creating a signature the next time, a chain relation occurs among the signatures. Verification of the signatures can be executed more reliably by verifying this chain relation or chain verification in addition to signature verification using the ordinary public key. Then, it is possible to create a reliable signature as a starting point of chain verification by employing the method that publicizes a part of the signature log through a publishing organization and to execute verification by using the chain relation, hence decreasing cost and the number of processes in the publication. Independent claim 5 recites, "... a publication process for publicizing a signature log entry . . ." Amendment. at 4.

On the other hand, ATDP fails to teach that a part of the signature log is publicized through a publishing organization.

Independent claim 5 is also directed to the publication notice processing for notifying the signer side apparatus of publication of a signature log entry in the publishing organization side apparatus. ATDP also fails to teach a publication notice process since it is not necessary for a client to know the publication date to create the invention of claim 5.

Likewise, Herald does not teach a publication notice process. Herald at 87-89. Thus, neither reference teaches this critical limitation.

In other words, it is not possible to combine ATDP and Herald to render claim 5 obvious.

b. Dependent Claims Are Not Obvious Over ATDP In View Of Herald

First, a dependent claim cannot be obvious if the independent claim from which it depends is not obvious. Dependent claims 6-9 depend from independent claim 5. As discussed

above, independent claim 5 is not obvious, thus dependent claims 6-9 are not obvious either. However, the dependent claims recite additional distinctions.

Claim 7, for example, is directed to a reminder transmission processing for transmitting a reminder document urging publication of said signature log entry. Amendment at 5. The object extraction process for specifying a signer to which publication of said signature log entry is to be urged will be efficient to suppress a risk of cancelling or altering of the signature log entries under the long chain verification or a risk of signatures by others utilized for the verification of the signature log entries. *See Application at Fig. 3.* It will also be efficient for the publishing organization side apparatus to execute a reminder transmission process for transmitting a reminder document urging publication of said signature log entry to said signer side apparatus utilized by said signer specified to decrease the risk of deteriorating the whole verification system.

On the other hand, ATDP fails to teach transmitting a reminder document urging publication of the signature log entry, because the latter does not have the publication database for the reminder transmission in the publisher system, thus preventing a person of ordinary skill in the art from combining ATDP and Herald to render claim 7 obvious.

As another example, claim 9 is directed to a verification vicarious execution process which has to collect a signature log by the signer, a publication signature log entry, and a signature log necessary for verification for said verification signature for which verification is requested. Amendment at 5-6. Then, the publishing organization side apparatus verifies those data and outputs the verification log including the data and the verification results. Application at Fig. 15, 51501-51508. The publishing organization side apparatus of claim 9 may necessitate

the signature log of the signer, the publishing organization side apparatus, and other user apparatuses, decreasing the signer's work load.

On the other hand, ATDP fails to disclose the solution by the publisher to decrease the signer's work load wherein it calculates information received from the clients and sends the result to the publisher which will successfully verify the signature. This is because the verifier or client in ATDP merely collects the information of the summary signature and the publisher's information does not decrease the work load of the client. Ergo, the combination of ATDP and Herald does not render claim 9 obvious.

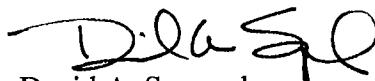
III. CONCLUSION

In conclusion, Applicant respectfully submits that the claims are now in condition for allowance.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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